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ABSTRACT

An educational experiment describing the development of prevocational English language and literary materials for non-English-speaking students is described in this report. The primary purpose of the project was to produce and to field test instructional materials for basic English language and literary skills via a series of supplemental, self-pacing, semi-programed, audiovisual units. The supplementary language units described in the report are intended to provide skills, concepts, and practice in a series of specially developed materials stressing linguistic problems which most often face the non-English-speaking student and inhibit progress toward vocational preparation. Program development and results derived from a modified Piers-Harris testing sample are discussed. (RL)

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FINAL REPORT OF

VOCATIONAL EDUCATION PROJECT 28-1028

A PROJECT TO DEVELOP PRE-VOCATIONAL LITERACY MATERIALS FOR SPANISH-SPEAKING STUDENTS

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Center for Language Research and Services
West Chester State College

West Chester, Pennsylvania
December, 1972

FL 003 825

Final Report

VOCATIONAL EDUCATION PROJECT #28-1028

September -, 1971 - December, 1972

INTRODUCTION

Vocational Educational Project #28-1028, a grant from the Pennsylvania State Department of Education to West Chester State College for the development and field testing of pre-vocational English language and literacy materials for non-English-speaking students, was approved by the state Department of Education in late summer 1971. The primary purposes of this project are (1) to produce and (2) to field test instructional materials for basic English language and literacy skills via a series of supplemental, self-pacing, semi-programmed audio-visual units.

These supplementary pre-vocational language units are intended to provide skills, concepts, and practice in a series of especially developed units stressing linguistic problems which most often face the non-English-speaking student and inhibit further progress toward vocational preparation. Materials are purposely planned to develop language skills in Spanish-speaking students although the Spanish language is not used so that they can also be utilized by other language populations. They will also serve as remedial or review materials for native speakers of English with linguistic or literacy deficiencies.

The self-instructional units are intended to build from the non-English-speaking base towards specific language skills which will permit students, both male and female, to enter several types of vocational education programs. The project was initiated on the campus of WCSC the first week of September 1971 and will terminate June 30, 1972.

PROJECT ACTIVITIES - Initial Planning

Department of Education approval of the Project in late summer found the program director, Dr. Philip D. Smith, on summer vacation since state college faculty members are not employed on a twelve month basis. Despite this unfortunate timing, necessary administrative procedures had been established for acceptance and oversight of the project. Personnel were interviewed and hired so that the project might commence with the opening of the fall academic semester. Necessary supplies and equipment, let for bid, under state regulation, could not be acquired until late fall due to restrictions on purchasing without funds available. Personnel (see below) were interviewed, employed and the faculty positions approved by the Commonwealth as augmentations to the WCSC faculty during the last week of August and first part of September. Personnel included one linguist-administrator (one/fifth time) one full-time bilingual writer, one full-time commercial artist and part-time clerical, purchasing and accounting personnel. All personnel began work on the project in space provided by the college in the Foreign Language Research Center, 110 W. Rosedale Ave., West Chester, Penna. 19380.

Initial Project activities in the project on the part of the linguist and writers included discussions and planning of the projected course sequence, concentrating specifically on language interference items in both the spoken and written language between Spanish and English. Extensive use was made of the college library, and experience of the Project Director and the writers in teaching non-English speakers. Once a number and a sequence of problems was defined, the writers developed a series of single concept programs with an estimated duration of 10-20 min. per lesson. By the close of the project twenty-eight (28) units had been developed and were ready for field testing.

Linguistic problem areas identified initially include (1) the necessity of formally teaching the alphabet as a prerequisite to telephone and machine operation, working in data processing and various types of grading and sorting as well as for basic literacy. The pronunciation and interference among rules governing the various English phonemes and allophones associated with the formation of English (2) plurals and (3) possessives. (4) Development of the concepts of the basic parts of the English sentence. (5) Units concentrating on the sequential development of the English verb phrase and (6) concommitant teaching of specific vocational and trade oriented vocabulary which will permit the student to successfully understand other textual materials on vocational topics.

The artist spent the initial several weeks of his time in setting up his workspace and ordering and obtaining materials. He consulted with the College Audio-visual Department seeking proper ways of preparing art work for filmstrip production. The writer and artist collaborated to develop basic thematic characters through the observation of Spanish-speaking students. The artist produced a large quantity colored art work and directed the photographic work necessary to transform art into instructional media.

Considerable time was spent by the Project Director in the review of various types of self-pacing Audio-Visual equipment which were suitable for the type of lesson that the team is preparing. A number of firms were invited to visit West Chester State College and display their equipment. Three manufacturers of Audio-Visual self-instructional units visited the campus in as many weeks and demonstrated their devices for the Vocational Education Project team and the staff of the Audio-Visual Department. The advice and experience of the specialists of the Audio-Visual Department was solicited and proved to be most helpful in the

selection of equipment.

EQUIPMENT ACQUISITION

The format selected for final production is a combination of the filmstrip and cassette recording with tone control on a second tape-track. Several companies manufacture this type of equipment. An important point was made concerning equipment by both the project team and the specialists in Audio-Visual Education. This was that the interim production of materials should be confined to 2x2 slides until the exact configuration, the ordering, and the length of each lesson was set after a trial with students.

A second important decision was based upon the awareness of the project staff that Spanish-speaking children at the adolescent and pre-adolescent ages are not self-disciplined learners. Audio-Visual items, for example, left in bilingual classes were soon found to have missing pieces, and to have been subjected to a great deal of wear and tear by intermitant and indescrimant operation of controls. It became imperative that Audio-Visual devices to be used in the project be totally self-contained with the actual equipment not available to the student. The Director specified that the equipment which would be used in the Project would be self-enclosed with only the response buttons and the "On-Off" control available to the student. Since the student unit is designed for individual use without the constant supervision of the teacher, this was felt the only safe way to go.

A formal bid proposal was prepared and circulated from the Business Office of West Chester State College to a number of known manufacturers of this type of equipment. Only one manufacturer chose to compete, the AVID Corporation of Providence R.I. The General Electric Company, whose equipment had inspired the Project, chose not to submit a bid. Although their equipment seemed superior from a programming standpoint, it is not enclosed, consisting of a configuration of several pieces of equipment joined by detachable cables. Employment of the

General Electric equipment requires the use of an external screen and several pieces of equipment being plugged into a single electrical outlet.

The Director was disappointed that General Electric did not choose to submit a bid based upon their estimate of the cost of supplying the equipment in an enclosed desk like unit. The student type desk unit was specified as a part of the bid since the College does not have the carpentry facilities for mounting components on the precision basis required by using projection equipment with short focal lengths.

At the end of November, 1971, four display units, 2 using 2x2 slides for initial testing and 2 filmstrip capability were on order from the AVID Corporation. The programming unit for use by the author and artist was also ordered (delivered 1/10/72) as well as a number of extra carousel trays which will permit furnishing the trial schools with a sealed set of slides, preventing the loss of valuable art work through mishandling. Additional AVID units were procured as well as a number of commercially prepared programs suitable for reworking for non-English speaking adolescents.

Additional equipment was obtained for the production and photography of art work and for the production of accompanying audio programs. This phase of the project was not completed before the project was terminated.

MATERIALS PRODUCED

By the end of the last full-working day, June 30, 1972, the following materials were developed and later delivered to the Department of Education:

1. A Spanish-language GUIDE TO VOCATIONAL EDUCATION--CURSOS EN EDUCACION VOCACIONAL.
2. An exemplary PRE-VOCATIONAL CURRICULUM GUIDE FOR SPANISH SPEAKING ADOLESCENTS.
3. Twenty-eight audio-visual units, script and photography.

POPULATION

A number of Spanish speaking children have been identified for field testing the programs and their names submitted to the State Dept. of Voc. Edu. in early December. These are the more advanced students at the bilingual program at the Learning Research Center, WCSC, and selected Puerto Rican secondary students at the East High School, West Chester, Pa.

PERSONNEL

Director: Philip D. Smith, Jr. A former State Language Supervisor, with a doctorate in second language education, he directs a bilingual school as a Professor of Spanish and Linguistics. Dr. Smith administers the project and provides technical linguistic guidance to the writer (one-fifth time).

Writer: Linda D'Alonzo. (B.A. Temple University) Miss D'Alonzo is an experienced teacher in English as a second language. Training in programming and lesson writing. Miss D'Alonzo works full time on the Project. Candidate for the M.A. in English as a second language. (Full-time).

Writer: Georgia Marketos. (Advanced student in English Education) Miss Marketos is a bilingual and developed the more advanced units on the complicated English Verb phrases (Part-time).

Artist: Glen Miller. (B.A., West Chester and Diploma, Philadelphia Academy of Art). Experienced commercial artist, Mr. Miller former work in display and layout for Advertising in a major Philadelphia newspaper. Working toward docterate in art history, University of Pennsylvania. (Full-time).

Photographer: James Flanagan (B.A., West Chester State College). Mr. Flanagan, a graduate student in art, served to photograph finished art work. (Part-time).

Bilingual Teacher: Madeleine Coleflesh (B.S., Temple University). A teacher of Spanish-speaking adolescents, Mrs. Coleflesh developed a suggested

pre-vocational curriculum guide for 10th grade students which enabled the writers to identify areas where their work could contribute maximably. Mrs. Coleflesh field tested the completed units and provided valuable feedback to the writers.

Bilingual Teacher: Hidalia Garcia. (B.A., University of Puerto Rico). Mrs. Garcia, also a teacher of Puerto Rican adolescents, translated the Vocational Education Guide into Spanish by use of the writers in identifying course content.

Linguist-Clerical: Judith Preuhs (B.A. English-Linguistics, West Chester). Mrs. Preuhs was employed on a part-time basis for four months to type lessons, order materials and act as a consultant in English structure. She left the Project to do graduate work in linguistics at the University of Hawaii. (Part-time).

Evaluator: Janet Seidel (Ed.D, Temple University). Dr. Seidel is a specialist in Educational Measurement, experienced in evaluating bilingual education programs. She evaluated the preliminary pilot testing of the materials. (Part-time).

EVALUATION OF PILOT STUDY

A pilot study was conducted in the special class provided for Spanish dominant students at East School in West Chester School District from April 13 to June 8, 1972. Two bilingual teachers were provided with two audio visual display units and the seven completed lessons in order to evaluate the effectiveness of the units as teaching devices to implement traditional teaching techniques for teaching English to students with a dominant language other than English.

This report is based on information obtained in the following manner.

1. Testing of students on a cognitive instrument designed to measure the degree to which the behavioral objectives outlined in the seven lessons were met.
2. Testing of students on a modified Piers-Harris to determine their attitude toward peers, school, and their self-concept.
3. Observations of the students use of the audio visual display units.
4. An open discussion with the students following post-testing.
5. Discussion with the two bilingual teachers who conduct the special class.

Background Information: The class is made up of a specially selected group of students who have language difficulties severe enough to prevent their participation in classes where English is the only language spoken. They are heterogeneous in ability and are almost entirely students who have been in the United States less than three years.

General Observations: An eight week pilot study could not be expected to produce statistically significant results. It's greater value should come from the observations of teachers and evaluator and the reactions of the students in

an effort to assess the most effective use of the units as incremental teaching tools.

Introduction: The original proposal indicated a Stanford Achievement Test would be administered in September and May to determine the academic advance made by each student who took part in the research study. A pilot study could not begin until mid April because of the myriad of difficulties inherent in the purchase of the best equipment and the creation of appropriate curriculum materials. Therefore, the students were pretested on April 13th.

1. The cognitive instrument* which was used for the testing was especially built by the evaluator with the assistance of the script writer to measure the degree to which the students had achieved the behavioral objectives outlined for the seven lessons.

Table I shows the results obtained from pre and post testing. The numbers of students involved is small (N-6) and the two students whom the teachers felt benefited most from the use of the curriculum materials were not present for post-testing.

TABLE I

Results of Tests on Cognitive Instrument

Tests	N	Mean	Gain	t	Probability
Pre	6	19.83			
Post	6	20.33	.5	.277	ns

2. A modified version of the Piers-Harris was administered to the students. It was analyzed as a whole (Table II). The items were then broken down into three component parts to measure the student's attitude toward themselves (self-concept), their peers, and school (Tables III, IV, & V).

*attached

TABLE II

Results from Modified Piers-Harris

Tests	N	Mean	Gain	t	Probability
Pre	6	23.17			
Post	6	24.33	1.16	.478	ns

TABLE III

Results of Self-Concept Component

Tests	N	Mean	Change	t	Probability
Pre	6	12.33			
Post	6	10.83	-1.5	-1.695	ns

TABLE IV

Expressed Attitude Toward Peers

Tests	N	Mean	Change	t	Probability
Pre	6	3.33			
Post	6	3.33	0	0	ns

TABLE V

Expressed Attitude Toward School

Tests	N	Mean	Change	t	Probability
Pre	6	5.833			
Post	6	5.167	-.33	-1.085	ns

As the evaluator anticipated there was no significant change which occured in the two sets of test results. This was partially the result of the short interval between tests and the level of difficulty of the lessons in relation to the student's ability.

3. The teachers initially used the lessons as rewards for work accomplished. The students reacted positively to the novelty and enjoyed the different approach to learning. Unfortunately, as mentioned earlier, the curriculum materials completed at the time of the pilot study were too easy for the majority of the students in this class and only the slower learners were able to benefit. This points out one of the problems in preparing lessons most helpful for non-English speaking students. Each group and individual has different needs and the lessons prepared for the units should be flexible in content so that each lesson could be adapted to meet the need of each student whereever possible.

4. Following the post-testing a free discussion was held to elicit student response. The students were open and direct.

   a. They liked the technique especially because it gave them a chance to take part. They did feel that they would like a greater proportion of the lesson devoted to student participation.

   b. The students were aware of the fact that they had already mastered most of the information in the available lessons. They asked for more lessons and more advanced material. (Since then, additional lessons have been completed and are ready for use.)

   c. They asked for special lessons devoted to possible job opportunities open to them, and information about the kind

and amount of education needed to meet the requirements for a given vocation. Some tended to be unrealistic (detective, scientist) while others, more practical, wanted clerical information.

5. The two bilingual teachers (one Spanish and one English dominant) were enthusiastic about the project. They had a number of specific lessons which they would like to see added (use of verbs, verb tenses, verb meanings). They felt the tool was a valuable addition to teaching students who were quickly bored and who need to experience success.

Conclusion: The problem of educating those members of our society whose dominant language is other than English has been recognized. This project has produced an interesting and valuable tool for further study, which could implement the traditional methods of teaching English. Although the tests produced no statistical significance, observations on the part of the teachers and evaluator and the experience of the students suggests this work should continue.

COGNITIVE INSTRUMENT

NAME _____

DATE _____

SCHOOL _____

1. Put a circle around the letter next to the small letter.

   a.
   b. (visual; 3 capitals, 1 small)
   c.
   d.

2. Put a circle around the letter next to the capital letter.

   a.
   b. (visual; 3 small, 1 capital)
   c.
   d.

3. Put a ring around the letter next to the numeral which is the same as the number of dogs.

   a.
   b. (visual; 2 dogs)
   c.
   d.

4. Put a ring around the letter next to the word which can be used in place of boy.

   a.
   b. (visual; he, she, it)
   c.

5. Circle the letter next to the sentence which describes the girl.

   a.
   b. (visual; the girl is short, etc.)
   c.
   d.

6. Circle the letter next to the number of coins in the picture.

   a.
   b.
   c.
   d.

-2- (cognitive instrumer+)

7. Circle the letter next to the numeral eleven.

a.
b.
c.
d.

8. Circle the letter next to the right pronoun.

a.
b. (visual; big house)
c.
d.

9. Circle the letter next to the word which can be a subject.

a.
b. (visual; "big", "house", "is")
c. (big, house, is poster)
d.

10. Circle the letter next to the word which is a verb.

a.
b.
c. (same)
d.

11. Circle a if the letters are capital letters, circle b if the letters are small letters.

a. (visual; alphabet in caps.)
b.

12. Circle the liscense plate which has a "Y" in it.

a.
b. (visual; four liscenses)
c.
d.

13. Circle the letter next to the line with a capital "P" and small letters "od".

a.
b. (alternate selections)
c.
d.

-3- (cogni ive instrument)

14. Circle the letter next to the numeral sixty-five.

a.
b.
c. (alternate selections)
d.

15. Circle the letter next to the numeral I do not read. You may mark the other letters to remember.

a.
b. (same as 14) omit 56
c.
d.

16. Circle the letter next to the word that means the same as <u>glad</u>.

a.
b. (visual; sleepy, sad, etc.)
c.
d.

17. Circle the letter next to the vowel.

a.
b. (visual; O, K, etc.)
c.
d.

18. Circle the letter next to the consonant.

a.
b. (visual; i, a, etc.)
c.
d.

19. Circle the letter next to the words which mean the same as "the boy's".

a.
b. (visual; the boy's + etc.)
c.
d.

20. Circle the letter next to the <u>word</u> in which <u>Y</u> is a vowel.

a.
b. (visual; yellow, sky)
c.
d.

-4- (cognitive instrument)

21. Circle the letter next to the word in which Y is a consonant.

    a.
    b. (same)
    c.
    d.

22. Circle the letter next to the word which can take the place of it.

    a.
    b.
    c. (visual; girl, house, etc.)
    d.

23. Two boys are talking in this picture. This boy (point) asks his friend "Is the girl pretty?" Circle the letter next to the sentence which answers the question.

    a.
    b. (visual; yes, she is; is she pretty, etc.)
    c.
    d.

24. (Show the visual which has the alphabet in small letters. Point to the following letters, a, d, y, s, o. 5 in total.) Circle a if the letter is a vowel, b if the letter is a consonant.

    1. a b
    2. a b
    3. a b (visual; alphabet in smalls)
    4. a b
    5. a b

25. Circle a if the letters are capital letters, b if the letters are small letters.

    a.
    b. (visual; alphabet in caps.)

Termination of the Project: An effort to continue Vocational Education Project 28-1028 was denied by the Department of Education. In an effort to produce the maximum amount of useable materials, the staff worked until late evening of June 30, 1972, date of termination. The Director, principal writer, and bilingual teacher continued to do final work gathering up "loose ends" beyond the termination date.

Continuation of Field Testing:

In order to adequately complete the materials development project, the Director and Bilingual Teacher have continued to work together throughout the summer and fall of 1972 without compensation or support to test the materials on students. A number of small problems have been noted and remedied. The bulk of the units have been used by adolescent Spanish-speaking students in a "real-life" situation at the East High School.

This unsupported activity continued from September through December, 1972.

Display

The materials were selected for display by the American Council on the Teaching of Foreign Languages at its annual meeting in Atlanta, Nov. 27-29, 1972. Approximately 2,000 educators saw a special exhibit with samples of the materials. Considerable interest was noted and several inquiries were received concerning the availability of the units.